

REMARKS

INTRODUCTION

In accordance with the foregoing, claims 7, 11, and 24-28 have been amended. No new matter is being presented, and approval and entry are respectfully requested.

Claims 1-28 are pending and under consideration.

INTERVIEW

Applicant thanks the Examiner for granting an Interview on May 2, 2003. Applicant also thanks the Examiner for permitting this Supplemental Amendment.

At the Interview, the Applicant and the Examiner discussed "workability" and the § 112 rejections of claims 7 and 11. It was agreed that the changes in this Supplemental Amendment would help clarify the relation between the specification and claims 7 and 11, as discussed in the February 24, 2003 Amendment.

It was also agreed that claims 24-28 would be amended to use language similar to the specification, such as "working means model". It is respectfully noted that these claims originally omitted "means" language because the Examiner at one time found the "means" language confusing. The Examiner agreed to note in the record that the claims are not being interpreted under § 112, paragraph 6.

CLAIMS 7 AND 11 AMENDED

In accordance with the Interview, claim 7 has been amended to no longer recite a workability coefficient. Claim 7 now recites "a workability evaluation section for evaluating workability based on a result of execution of the working simulation by said working simulation execution section and also based on information of the attribute of the working means model, where the workability indicates whether or an extent to which the working means model is able to work the one or more standard part models. An example of an "attribute" is range of motion of a working means model. An example of "information of the attribute" is a value of range of motion. For example, 60 degrees. More detailed explanation of the support for determining

workability may be found in the previous Amendment. Claim 11 has been similarly amended.

CLAIMS 24-28

Claims 24-28 have been amended in accordance with the Interview.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: 19 May 2003

By: James T. Strom
James T. Strom
Registration No. 48,702

700 Eleventh Street, NW, Suite 500
Washington, D.C. 20001
(202) 434-1500

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Please AMEND the claims in accordance with the following:

7. (TWICE AMENDED) A simulation apparatus as claimed in claim 2, further comprising [a workability evaluation coefficient storage section for storing, for the working means model included in the same attribute, a workability evaluation coefficient which is referred to for evaluating a workability of the working means model, and] a workability evaluation section for evaluating [the] workability based on a result of execution of the working simulation by said working simulation execution section and also based on information of the attribute of the working means model, where the workability indicates whether or an extent to which the working means model is able to work the one or more standard part models [the workability evaluation coefficient stored in said workability evaluation coefficient storage section].

11. (TWICE AMENDED) A simulation apparatus as claimed in claim 7, wherein said working means model information storage section stores information of a plurality of reference positions for any working means model which allows operation thereof in a plurality of different methods and said working simulation execution section executes a working simulation according to the plurality of operation methods while [said workability evaluation coefficient storage section stores a workability evaluation coefficient which is referred to for] evaluating a workability for each of the operation methods of the working means model, and said workability evaluation section evaluates the workability of the working means model for the each of the working methods based on a result of execution of the working simulation according to the working method and also based on the information of the attribute, where the workability indicates whether or an extent to which the working means model is able to work the one or more standard part models [workability evaluation coefficient stored for the operation method of the working means model in said workability evaluation coefficient storage section].

24. (TWICE AMENDED) An apparatus for simulating work upon a model, comprising: a [main] design model comprised of a [workable component] standard part model; a working means model, separate from the [main] design model, of a type generally

capable of [working] mating with the [workable component] standard part model, and having working requirements information for working the standard part model in a virtual three-dimensional space when mated with the standard part model [according to working requirements of the working model];

arrangement information describing an arrangement of the working means model when it is [working] arranged to be mated with the [component] standard part model; and

a processing unit automatically determining whether or an extent to which the arranged working model can work the component model according to [, by automatically comparing] the arrangement information, [and] the working requirements of the working means model, and according to the [main] design model.

25. (TWICE AMENDED) The apparatus according to claim 24, wherein the processing unit also automatically determines whether the working means model can be [moved in] routed through the virtual three-dimensional space to its mated arrangement without interference between the moving working means model and the [main] design model.

26. (TWICE AMENDED) The apparatus according to claim 25, wherein orientation information is associated with the [component] standard part model, and the determining whether the working means model can be [moved] routed in the virtual three-dimensional space to its mated arrangement further comprises automatically determining whether the working model can approach the [component] mating with the standard part model according to the orientation information [,] and without interference from the main model.

27. (TWICE AMENDED) A method for simulating, comprising:
arranging a working means model into a working arrangement, according to an arrangement of a [component] standard part model that is part of a [main] design model; and
automatically determining whether or an extent to which the working means model, as arranged in its working arrangement, can work [upon], in virtual three-dimensional space, the [component] standard part model, by using the [main] design model and working requirements of the working means model to automatically simulate the working means model working [upon] the [component] standard part model.

28. (TWICE AMENDED) The method according to claim 27, further comprising

determining whether a route of movement of the working means model to the arrangement with the standard part model [said arranging] can be performed without interference between the main model and the working means model.